

PROJECTED WORKS.—Advertisements have been issued for tenders, by 7th November, for the erection of a workhouse at Wokingham, Berks; by 4th, for the erection of six cottages, &c., at the Bricklayers' Arms station, for the London, Brighton, and South Coast Railway; by same date, for the maintenance of the permanent way and works, for a term of seven years, for same Company; by 31st inst., for building sewers in the City; and by 26th, for supplying pig lead for the Navy at Chatham. Master carpenters, bricklayers, plasterers, and stonemasons, are also wanted to contract for the erection of 500 houses for a building association: membership indispensable.

MARBLE VENEERING, OR SLATY PAINT.—In Ohio, according to a New York paper, a Mr. Blake, of Akron, has discovered a curious mineral, soft at first, and like indigo, but hardening in a few days into a slaty stone. On analysis it is found to consist of about one-half silica, one-fourth alumina, with magnesia, oxide and sulphate of iron, lime, and carbon. By reducing it to fine powder, mixing with linseed oil into thick paint, and applying it with a brush to wood, iron, tin, zinc, or brick, it becomes, after a few months' exposure, perfectly hard and indestructible. As a protection against fire, it is said to be invaluable. In the west it is in large demand for covering roofs of buildings, for bridges and fences, &c., all of which it protects from weather as well as from fire. School slates are manufactured by applying it to thin wood or pasteboard. On wooden mantel fronts and tables its appearance, when polished, is held to be not inferior to the finest Egyptian marble. Mr. Blake has procured a patent for his discovery. Would not Portland cement, in fine powder, and thus applied, with linseed oil, produce a slaty veneer over similar surfaces? We make a present of the suggestion to the Portland cement manufacturers. Parian cement mixes with oil, and might thus, we think, be used as paint, or for stony veneering; and certainly the surface of blocks of Portland cement reminds one a good deal of slate: the hardening, too, from a soft or moist state very much adds to the resemblance which it bears to this new world's wonder. By the way, silica, with lime, has been found, if we mistake not, to form a sort of glaze well adapted to give a stony veneering, like this, to plaster.

GAS AT A GREATER DISCOUNT THAN EVER.—The inventors of a new electrical light, exhibited at the Western Literary Institution, Leicester-square, on its recent re-opening under the new auspices, expect, it is said, to apply it generally to shop and street illumination; and they state, that while the "plant" will cost no more than gas, the expense of illumination will be only one-twelfth of the price of the latter light. The current of electricity in passing through the two pieces of charcoal which form the poles of the circuit and are excluded from all access of air, gives, in this case, it is said, an intense and beautiful white light, with the effect of daylight to a much greater extent than the lime light does, and having this advantage, that it is sustained and continuous. If Messrs. Staite and Petrie can thus produce a steady and sustained light, they have accomplished what has heretofore been the sole preventive to the substitution of galvanism for gas. The *Mechanics' Magazine* states that this one light completely eclipsed ten gas lights and an oxy-hydrogen! The gas companies had better look out. The dissatisfaction of the public with their mismanagement may have begotten a rival destined to eclipse many more than merely ten of their gas lights.

ANOTHER SUSPENSION-BRIDGE OVER THE NIAGARA.—According to the *Halifax Sun*, "They talk of building another suspension-bridge over the Niagara, opposite Queenston. At the location chosen the water space is about 600 feet: between the towers, which are to be of stone, the distance is about 800 feet. Mr. Ellet, the engineer, offers to construct the bridge for carriages and foot passengers for 40,000 dollars, and to take 10,000 dollars of the stock himself—the remaining 30,000 dollars to be divided between Canada and the United States." We understand, says the *Toronto Examiner*, that Mr. Ellet has made affidavit at Lockport, that the bridge at the Falls, in its present state, is unsafe, and will not last two years.

THE PLATE GLASS DUTIES.—In a fresh edition of a tabular statement concerning the manufacture of plate glass in England, and the advantages resulting from the remission of the duties, issued by Mr. H. Howard, of Plaistow, the writer says, that the exports of English glass in 1847 exceeded those of 1846,—in flint glass, by 20 per cent.; in common window glass, by 42; in bottles, by 5; in looking glasses, by 49; and in plate glass, by 110 per cent. Well may Mr. Howard remark, "Looking at the unexampled commercial difficulties of 1847, this increase is almost incredible." Two facts relative to the trade in plate glass, stated by Mr. Howard, have a bearing upon these general results too important to be omitted. Of two agencies established here, exclusively for the sale of foreign plate glass, one has been compelled to relinquish the sale of it, simply from inability to withstand British competition. There was no English plate glass exported to the United States in 1846; while in 1847 it equalled in amount the exports to all the world in 1846. How, then, are we to account for complaints made both in and out of Parliament, that British interests have suffered from the remission of the glass duties? Mr. Howard throws some light on this question:—"In 1845, when the excise duty was remitted, the English makers reduced the price of small plates (which foreigners could not afford to send here at all), to a fair and equitable scale, but the large plates (which, paradoxical as it may appear, cost less per foot than the small ones), were kept up at the unreasonable rates quoted above. Our neighbours, the French and Belgians, attracted and encouraged by the simplicity which thus invited them here, under cover of our excessive prices, accordingly brought over and sold their larger fabrics at enormous profits, whilst our manufacturers, realising still greater advantages, and supported by an immense demand, refused to modify this extraordinary tariff, although its manifest injustice to the public, and direct tendency to injure the very interest it was intended to promote, have been almost universally condemned as the climax of absurdity." Labour forms directly and indirectly nearly 80 per cent. of the cost of plate glass. The raw material is nearly all English produce. In short, it is a natural manufacture. As such it was depressed by heavy excise duties, and not relieved by protection from foreign competition. Since it has been emancipated both from the oppressive and the protective influences of fiscal regulations, it has daily grown in strength and prosperity, in defiance of competition.

ANECDOTE OF THORWALDSEN.—An illustrious friend of mine, calling on Thorwaldsen some years ago, found him, as he said to me, in a glow, almost in a trance, of creative power. On his inquiring what had happened, "My friend, my dear friend," said the sculptor, "I have an idea; I have a work in my head which will be worthy to live. I was walking out yesterday, when I saw a boy sitting on a stone in an attitude which struck my very much. 'What a beautiful statue that would make!' I said to myself. 'But what would it do for? It would do—it would do—it would do exactly for Mercury, drawing his sword just after he had played Argus-asleep.' I came home immediately. I began modelling. I worked all the evening, till, at my usual hour, I went to bed. But my idea would not let me rest: I was forced to get up again. I struck a light, and worked at my model for three or four hours, after which I again went to bed. But again I could not rest; again I was forced to get up, and have been working ever since. Oh, my friend, if I can but execute my idea, it will be a glorious statue." And a noble statue it is, although Thorwaldsen himself did not think that the execution came up to the idea. I have heard of a remarkable speech of his, made some years after to another friend, who found him one day somewhat out of spirits. Being asked whether anything had occurred to distress him, he answered, "My genius is decaying." "What do you mean?" said the visitor. "Why, here is my statue of Christ; it is the first of my works that I have ever felt satisfied with. Till now my idea has always been so far beyond what I could execute, but it is no longer so; I shall never have a great idea again."—*Hare.*

THE COLLEGE CHAPEL AT MARLBOROUGH, the consecration of which we have already noticed, is rectangular in form, length 120 feet, width 41 feet, with buttresses between the side windows, of which there are seven on each side, and at each angle large pinnacles, which rise nearly to the top of the roof. According to a correspondent, the structure is in the late decorated style of architecture, and is built with ragstone, the windows and dressings of Bath-stone. The roof is covered with slate, pitched to an equilateral triangle. The north and south doors have stone porches with groined ceilings. All three are of oak, with ornamental wrought-iron hinges. The east gable is surmounted with a cross, and the west with a bell-turret. The chapel is surrounded with a broad-paved walk. The interior is divided into the chapel and ante-chapel by a screen. The seats, which are open, consist of stalls at the west end, under the gallery, which projects over and forms a canopy: the stalls extend up a part of the north and south walls. There are other stalls at intervals, and in front of two of these are placed the reading desks. The centre walk is 8 feet wide, and is paved with black and red tile paving, with a stone border. A space is left open in front of the altar-steps, which is paved with encaustic tiles of the same pattern as the altar. At the west end is the gallery, over the ante-chapel. At the back of the gallery, recesses are formed by arches, in which the organs is placed. The roof covers the whole area in one space, and is formed with an arch supported on carved stone corbels, collar-beam, and trefoil spandril above: the whole of the timbers of the roof are shewn and boarded. The interior fittings, with exceptions, are of deal, painted in imitation of oak. The chapel is lighted with gas. There are sittings for 500 pupils, and 200 seats for masters, officers, domestics, &c.

PROTECTION OF PILER IN SEA WATER.—(Sir: Your correspondent G. J. R. deals rightly with the philosophy of this question, where he speaks of "covering the surface of timber with broad-headed iron nails, which, shortly after their immersion in water, form an armour of rust insects cannot penetrate." What is thus achieved with a great deal of trouble and difficulty by a slow process of nature, Mr. Charles Payne's invention with rapidity and economy ensures, by a scientific application of the same natural principle. By that process (now in the hands of the Timber Preserving Company, whose experiments to show the uninflamability of Paynized timber were lately noticed in your journal) an incorruptible sulphate of iron is formed within the interstices of the piles, by the successive injection and subsequent decomposition of an alkaline and mineral salt. Wood thus prepared is proof against the white ant of India, and the *torredo navalis*, and sugar worm. Actual proofs of its efficacy have been afforded by experience (at Herne Bay, and elsewhere), but I need not say to you that the experimental test, where a sound theory is demonstrable, would be unnecessary to convince practical men of science. W. B.

CHOLERA AND THE COMMON SEWERS.—It has been remarked, not only that the convict-ship *Justitia*, in which alone at Woolwich cholera prevails, is stationed opposite the outlet of a sewer,—but that "the whole of the cases originated in the lower deck, on the star-board side and stern of the *Justitia*; that part being exactly opposite the mouth of the sewer." What will the old lady who derived so much benefit from a residence opposite a gully-hole say to that?—if indeed said old lady be still on this side the Styx—i.e. the gully-hole—which is by no means likely.

ANCIENT REMAINS.—At Aldborough, the Roman *Isa Brigantium*, a tessellated pavement 12 feet square, and in perfect condition, has been found in a garden, near another uncovered in 1832.—The remains of Stukely's celebrated "Temple-Umbra," at the Boroughfield, Chesterford; have turned out, it is said, to be "decidedly those of a dwelling-house rather than a temple:" they are still, however, held to be Roman in origin.—At Gonaston Church, near Nottingham, three ancient brasses of historical interest have been found thrust carelessly into a hole covered with rubbish.